

Notice of Allowability

Application No.

09/877,720

Examiner

Zhuo H. Li

Applicant(s)

MOORE ET AL.

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to May 31, 2005.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/11/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

1. Claims 1-21 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Applicant's invention is drawn to a memory device and method for storing and reading data in a write-once memory array by reading and storing all data bits in the write-once memory array in an inverted form (i.e., a controller of a storage device being coupled with a write-once memory device for inverting selected data bits and storing them in the appropriate section of the write-once memory array, and for inverting the data bits read from the section of the write-once memory array storing inverted data bits while allowing data bits stored in the other section of the write-once memory array to be read without inversion).

Applicant's independent claim 8 recites, *inter alia*, a memory device with a structure as defined in the specification (pages 11-14) including a write-once memory array storing a plurality of bits representing data, and a controller operative to invert the plurality of bit representing the data irrespective of a number of logic one bits in the plurality of bits when the plurality of bits is read from the write-once memory array. Applicant's independent claim 8 comprises a particular combination of element, which is neither taught nor suggested by the prior art.

Applicant's independent method claims 1 and 12 each recite, *inter alia*, inverting a plurality of bits representing data to be stored in a write-once memory array irrespective of a number of logic one bits in the plurality of bits and storing the inverted plurality of

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bits in the write-once memory. These steps, in combination of the remaining steps, are neither taught nor suggested by the prior art.

Accordingly, Applicant's claims are allowed for these reasons and for the reasons recited in the previous Amendments and Appeal Brief.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is related to applicant's disclosure. Hori (JP 07045085A) discloses a data writer and reader to extend the service life of a rewritable ROM by counting the number of bits '0' and the number of bits '1' and writing data without inverting them when the number of bits '0' is less than the number of bits '1' (abstract), which Hori neither teaches the steps of inverting a plurality of bits representing data to be stored in a write-once memory array irrespective of number of logic one bits in the plurality of bit, nor a controller operative to invert the plurality of bit representing the data irrespective of a number of logic one bits in the plurality of bits when the plurality of bits is read from the write-once memory.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhuo H. Li whose telephone number is (571) 272-4183. The examiner can normally be reached on Tue-Fri 8:30 AM-6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zhuo H. Li



Patent Examiner
Art Unit 2189



BEHZAD JAMES PEIKARI
PRIMARY EXAMINER